Navy IPv6 Transition

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Agenda

- Introduction to Sea Power and FORCEnet
- FORCEnet and IPv6
- Global Scope
- Navy IPv6 Transition
- Innovation
- Industry Involvement

Sea Power 21 Pillars

- Sea Strike – **Projecting Precise and Persistent Offensive Power**
- Sea Shield – **Projecting Global Defensive Assurance**
- Sea Basing – **Projecting Joint Operational Independence**
- Sea Trial – **Process of Innovation**
- Sea Warrior – **Investing in Sailors**
- Sea Enterprise – **Resourcing Tomorrow's Fleet**

Implemented by a Global Concept of Operations

- Our enemies are dedicated to finding new and effective methods of attacking us. They will not stand still. To outpace our adversaries, we must implement a continual process of rapid concept and technology development that will deliver enhanced capabilities to our Sailors as swiftly as possible.

  Sea Power 21 Series By Admiral Vern Clark, U.S.Navy

Sea Shield

Sea Trial

Sea Warrior

FORCEnet

Sea Enterprise

Sea Strike

Sea Basing
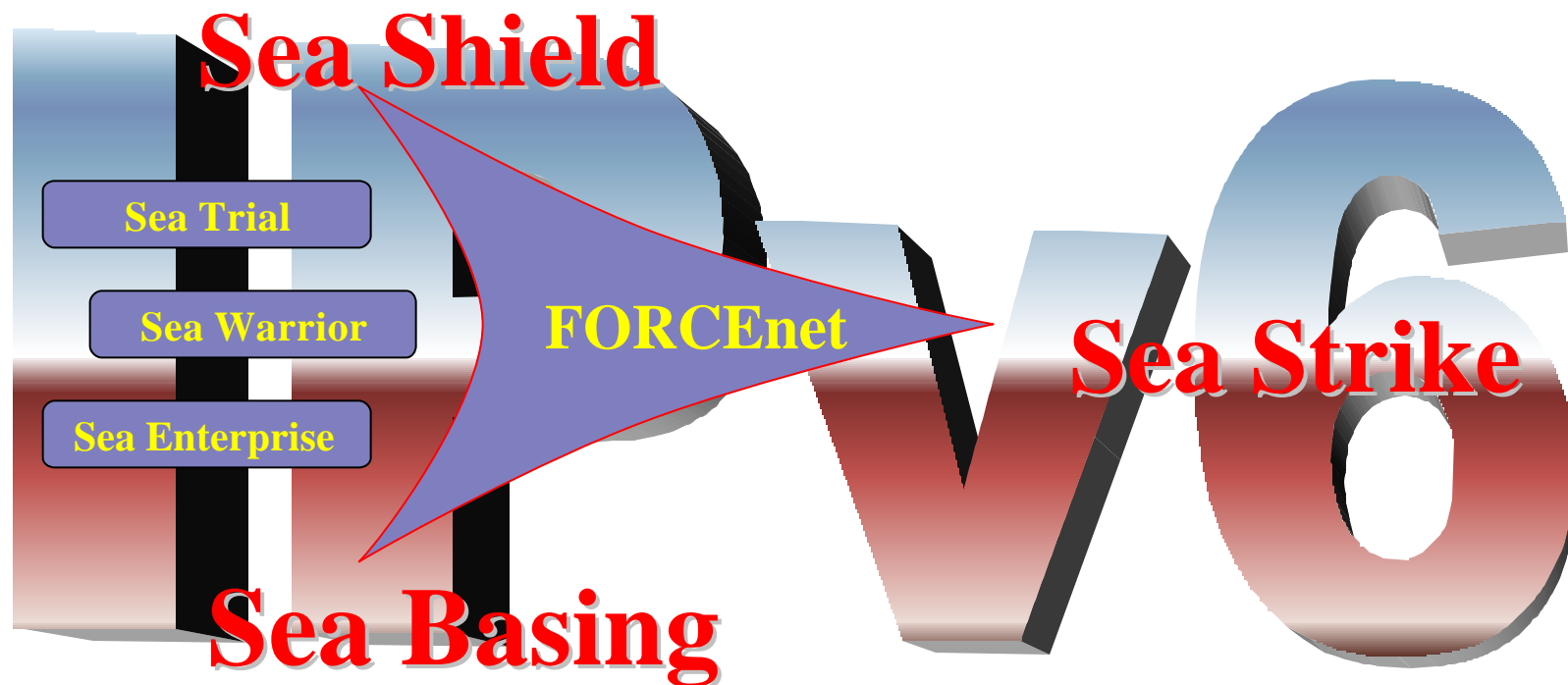
What is FORCEnet?

FORCEnet enables dispersed, human, decision-makers to leverage military capabilities to achieve dominance across the entire mission landscape with joint, allied and coalition partners. FORCEnet is the future implementation of Network Centric Warfare in the Naval Services.
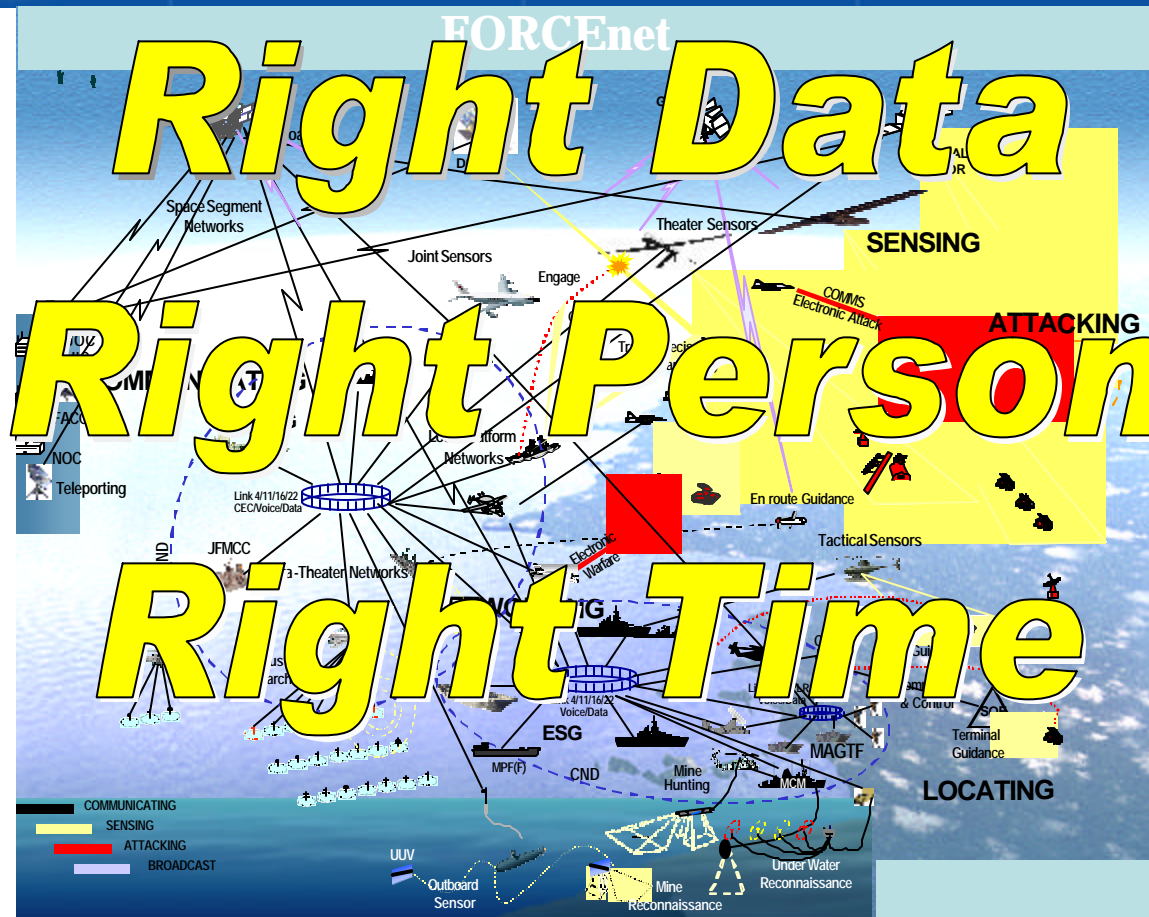
Naval Transformation Roadmap

Transforming Information Into Decisive Effects

1101011010101001010011011101011011011011011010101

Right Data Right Person Right Time

- **Exploit Every Source – Leverage What We Have**

- **Provide Shared Situation Awareness/ Understanding**

- **Support Dominant Speed of Command**

- **Permit Precise, Synchronized Execution**

- **Allow Agility and Flexibility**

IP Based Transformational Communications

IPv6 Enabling FORCEnet
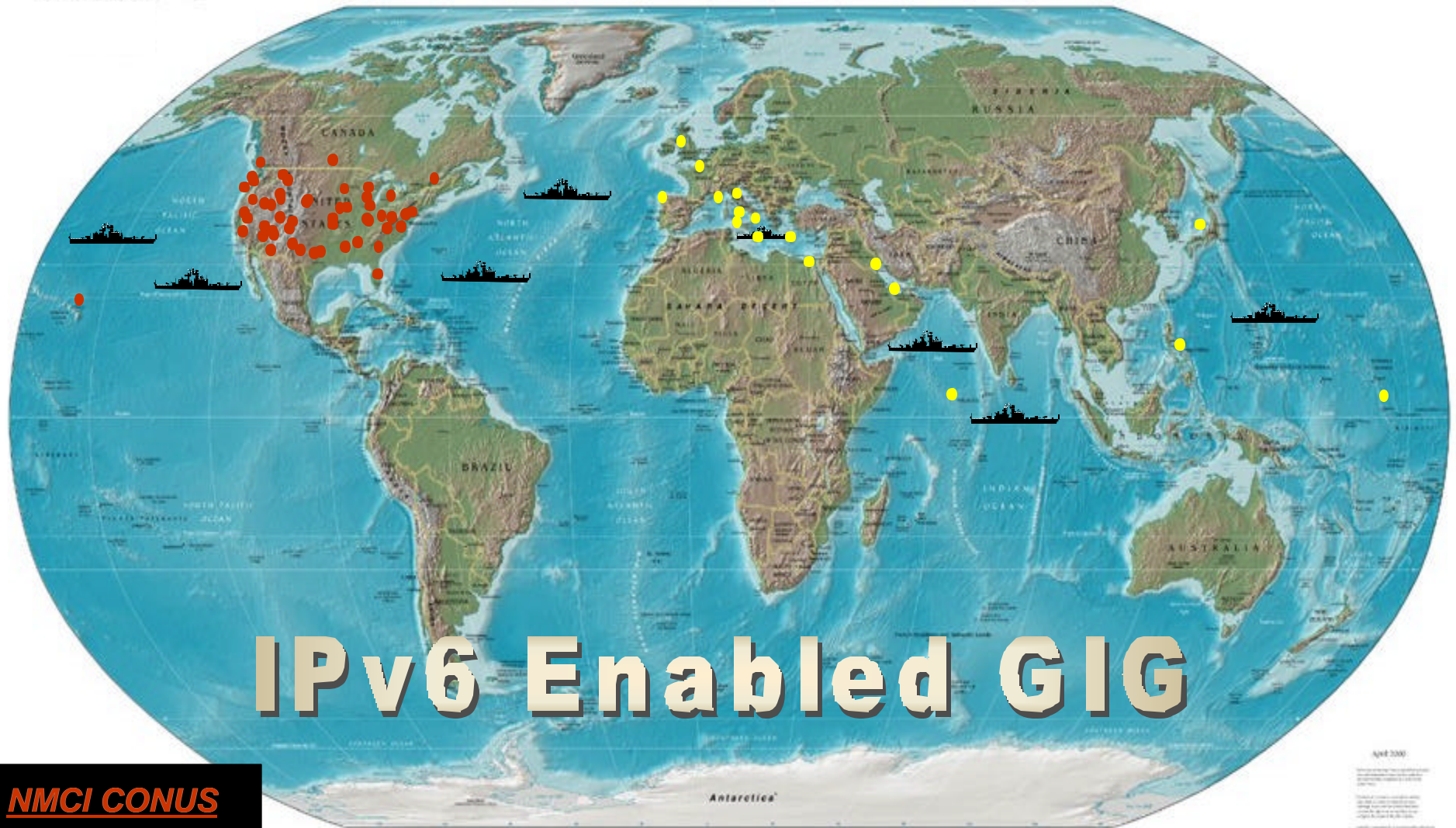
Winning the Fight…And Bridging to the Future

FORCEnet,…"and created a plan to transition our communications to a worldwide Internet Protocol using the advanced **IPv6 standard**."

CNO Guidance for 2005 By Admiral Vern Clark, U.S. Navy

NAVY IPv6 PROJECT OFFICE

Navy Global Initiative

IPv6 Enabled GIG

NMCI CONUS
BLII OCONUS

Navy IPv6 To Date

- **ASD set DoD GOAL for transition to IPv6 by FY08**

- **DoD policy states all Navy IT developed, acquired, or procured be IPv6 capable**

- **Navy IO (OPNAV N6F) and OPNAV N61 are designated leads for the development of the IPv6 transition plan**

- **SPAWAR designated the Navy technical lead**
  - **Navy IPv6 Transition Plan/Navy IPv6 Test Plan/Navy IPv6 Survey**

- **Navy IPv6 Transition Team Working Groups (Virtual SYSCOM)**

- **Joint Service Collaboration**

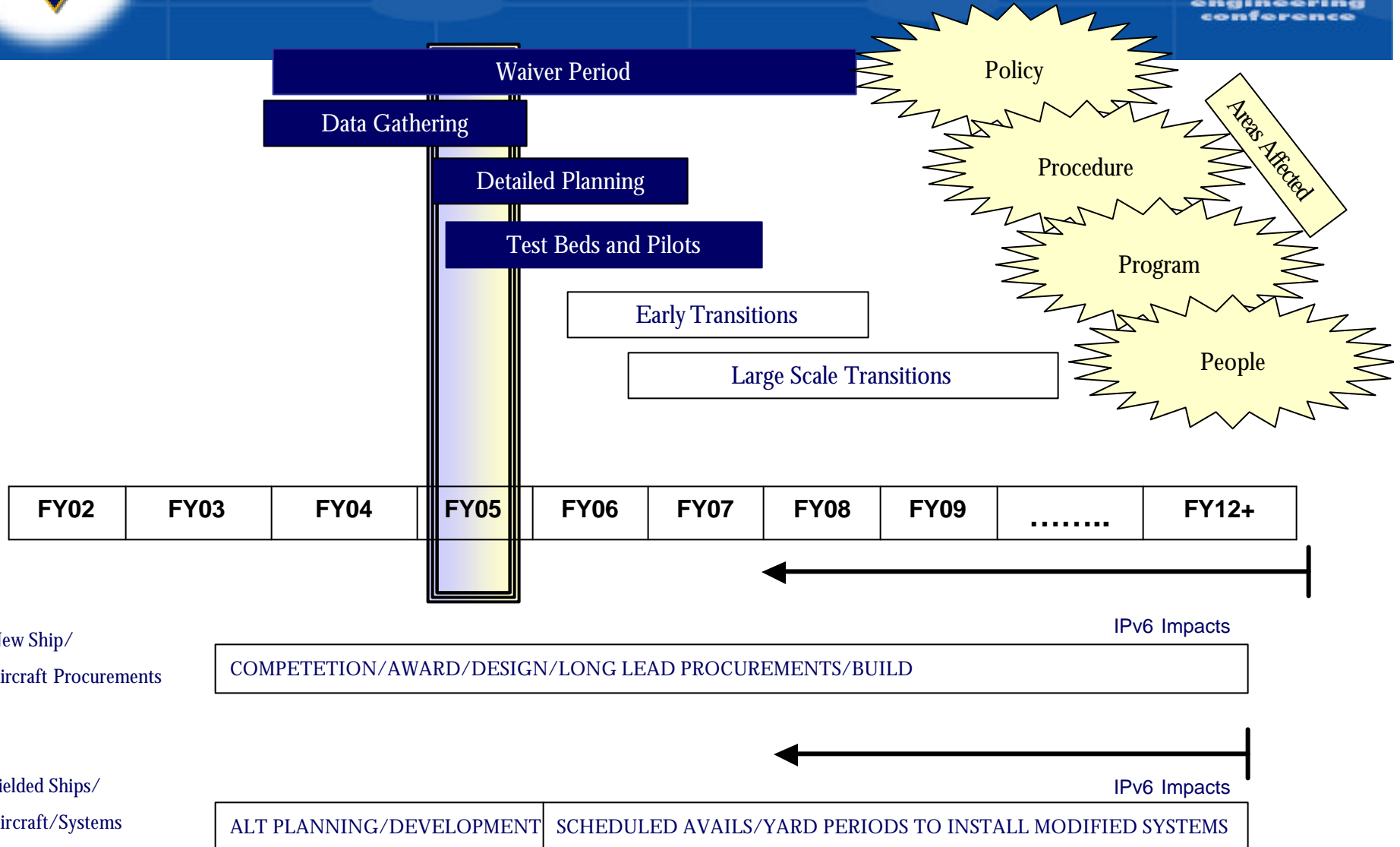# Navy Transition Plan Overview & Objectives

- **Achieve Enterprise-wide deployment of IPv6**
- **Meet operational requirements, IA and cost while maintaining interoperability**
- **Comply with DoD stated schedule goals**
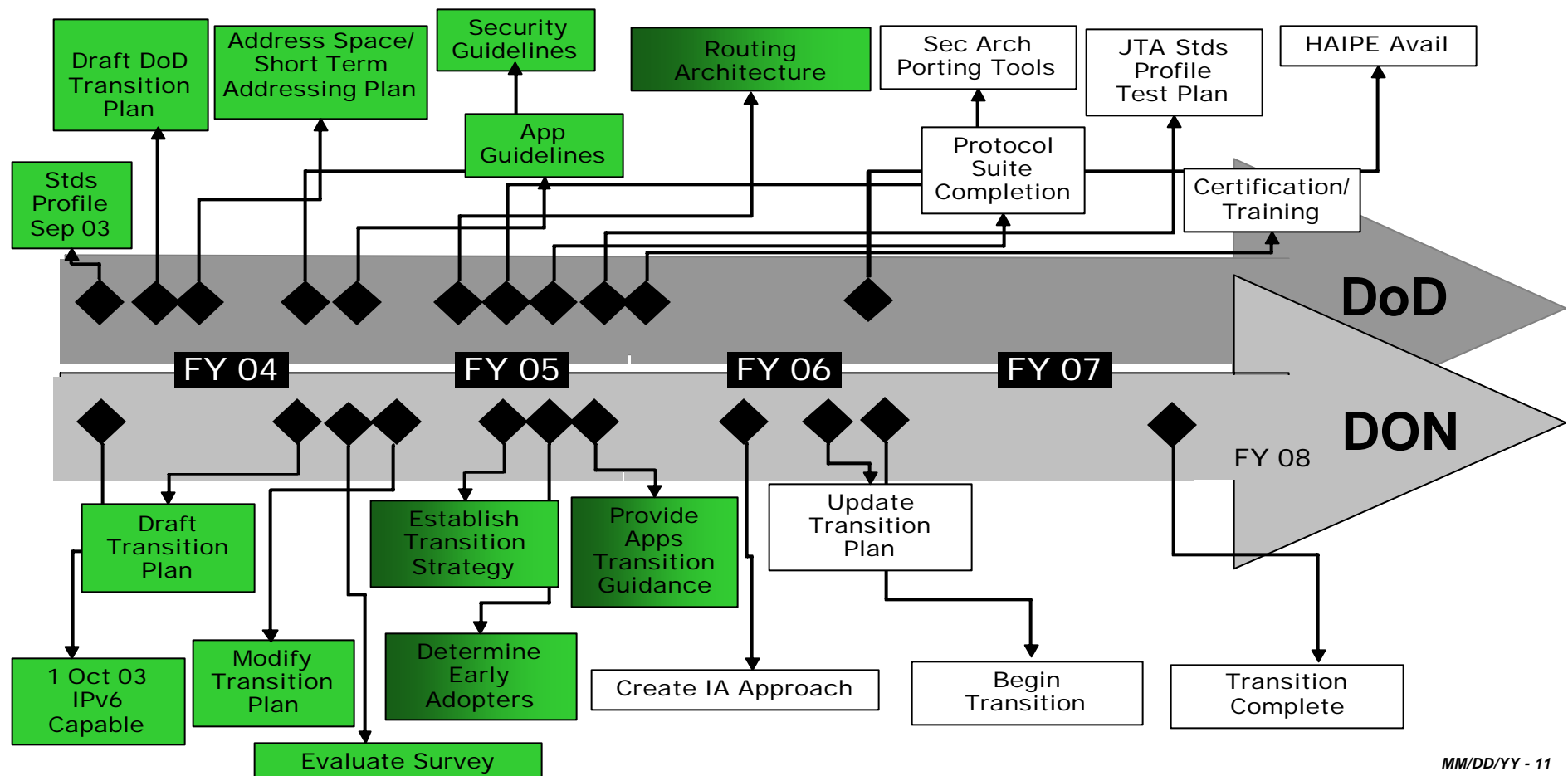
Transition Plan Way Ahead

SPAWAR

FORCEnet engineering conference

	Waiver Period			Policy

Areas Affected

Data Gathering

Procedure

Detailed Planning

Test Beds and Pilots

Program

Early Transitions

Large Scale Transitions

People

FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	……..	FY12+

New Ship/
Aircraft Procurements

IPv6 Impacts

COMPETETION/AWARD/DESIGN/LONG LEAD PROCUREMENTS/BUILD

Fielded Ships/
Aircraft/Systems

IPv6 Impacts

ALT PLANNING/DEVELOPMENT | SCHEDULED AVAILS/YARD PERIODS TO INSTALL MODIFIED SYSTEMS

Navy IPv6 Transition Success Measures

- **Critical Navy system interfaces identified and tracked through transition**
  - Navy Programs, dependencies, and development efforts
- **Navy-wide consensus on, and participation in key IPv6 milestones to achieve compliance IAW DoD Directives**
- **Transition End State Goals**
  - Full IPv6 transition
  - Minimize requirements for IPv4
- **Leverage new technologies for the warfighter**
  - MANET

- **Remote monitoring capability and/or control**
- **Available on demand, real-time, from anywhere on the ship…**
- **Wireless video**
- **Wireless communications**
- **Self forming networks**
- **Secure VoIP**
- **MANET**

*not inclusive list

Fully integrated
Naval network infrastructure
to achieve complete
situational awareness in
future battlefields

Innovation Efforts

- Engage acquisition and laboratory activities in discussions to further innovation within IPv6 designed to support future Navy networks
  - CNO N7 directed activity
  - Coordinated across services through liaison with service TO's
- Champion demonstrations and pilots
  - Work to acquire funding for originating activity
  - Ensure coordination across services to avoid duplicity
- Provide a supporting role for pilots and early adopter programs
  - Assist with roadmap and interoperability issues across services and within the DON CIO and OPNAV domains
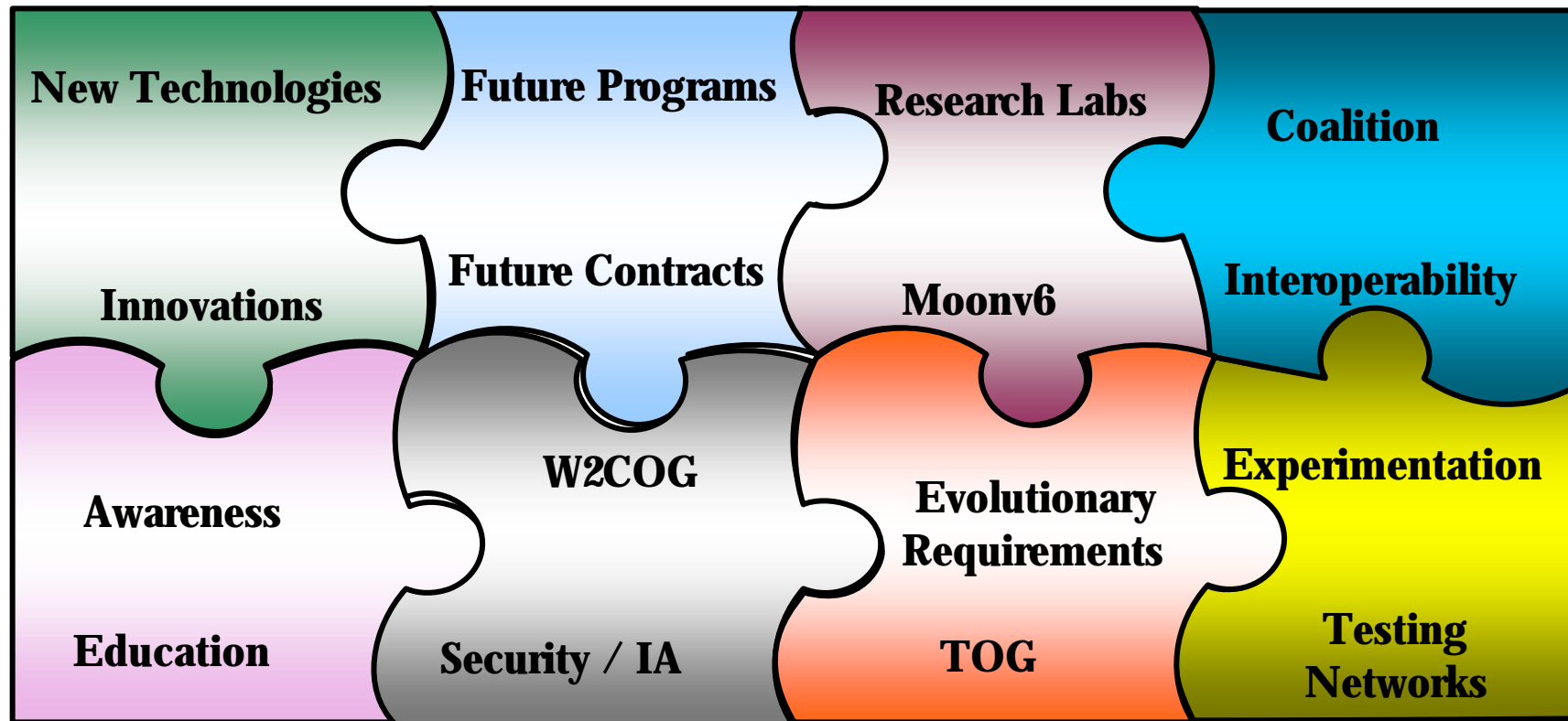- Collaborate with industry

IPv6 Enabling FORCEnet and More...

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Power to the Edge

NAVY **IPv6** TRANSITION

Questions

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